L 3150-66

ACCESSION NR: AP5016054 3

compared with the visible region. The deviation from the reciprocity law for prolonged exposures is determined for some types of emulsions. The resolution of the material is claimed to be sufficiently high even in thecase of the coarse-grain emulsions UFSh-O. A table summarizing the characteristics and some of the characteristic curves are included. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut (All-Union Scientific-Research Institute of Motion Picture Photography) 44,55

SUBMITTED: 00 ENCL: 00 SUB CODE: ES, OP

NR REF SOV: 004 OTHER: 000

Card 2/2

KALINKINA, T.A.; OSHURKOVA, A.N.; PANKOVA, A.A.; UVAROVA, V.M.; CHISTOVA, G.I.; SHPOL'SKIY M.R.

Photographic materials from the Motion Picture and Photography Scientific Research Institute for spectrum analysis in the Ultraviolet spectral region. Zhur. prikl. spektr. 2 no.5:475-478 My '65. (MIRA 18:7)

MARKOV, G.S., prof.; UVAROVA, V.Ya., dotsent; MUKHIN, V.A., dotsent

Ivan Alekseevich Panshin, 1899-1962; an obituary. Uch. zap. Volg. gos. ped. inst. no.16:174 '64. (MIRA 19:1)

UVAROVA, V.Ya.

Materials on the feeding of rooks of the Volga flood plain in Gorkiy and Ivanovo Provinces. Trudy Probl. i tem. sov. no.9:223-229 '60. (MIRA 13:9)

1. Gor'kovskiy gosudarstvennyy universitet.
(Gorkiy Province--Rooks (Birds)) (Ivanovo Province--Rooks(Birds))
(Birds--Food)

KUBANTSEV, Boris Sergeyevich, kand. biol. nauk; UVAROVA, Vera Yakovlevna; KOSAREVA, Nina Aleksandrovna; ANDRIANOV, A.G., red.; IZHBOLDINA, S.I., tekhn. red.

[Animal kingdom of Volgograd Province; terrestrial vertebrates] Zhivotnyi mir Volgogradskoi oblasti; nazemnye pozvonochnye zhivotnye. Pod nauchnoi red. B.S.Kubantseva. Volgograd, Volgogradskoe knizhnoe izd-vo, 1962. 191 p. (MIRA 16:4)
(Volgograd Province—Vertebrates)

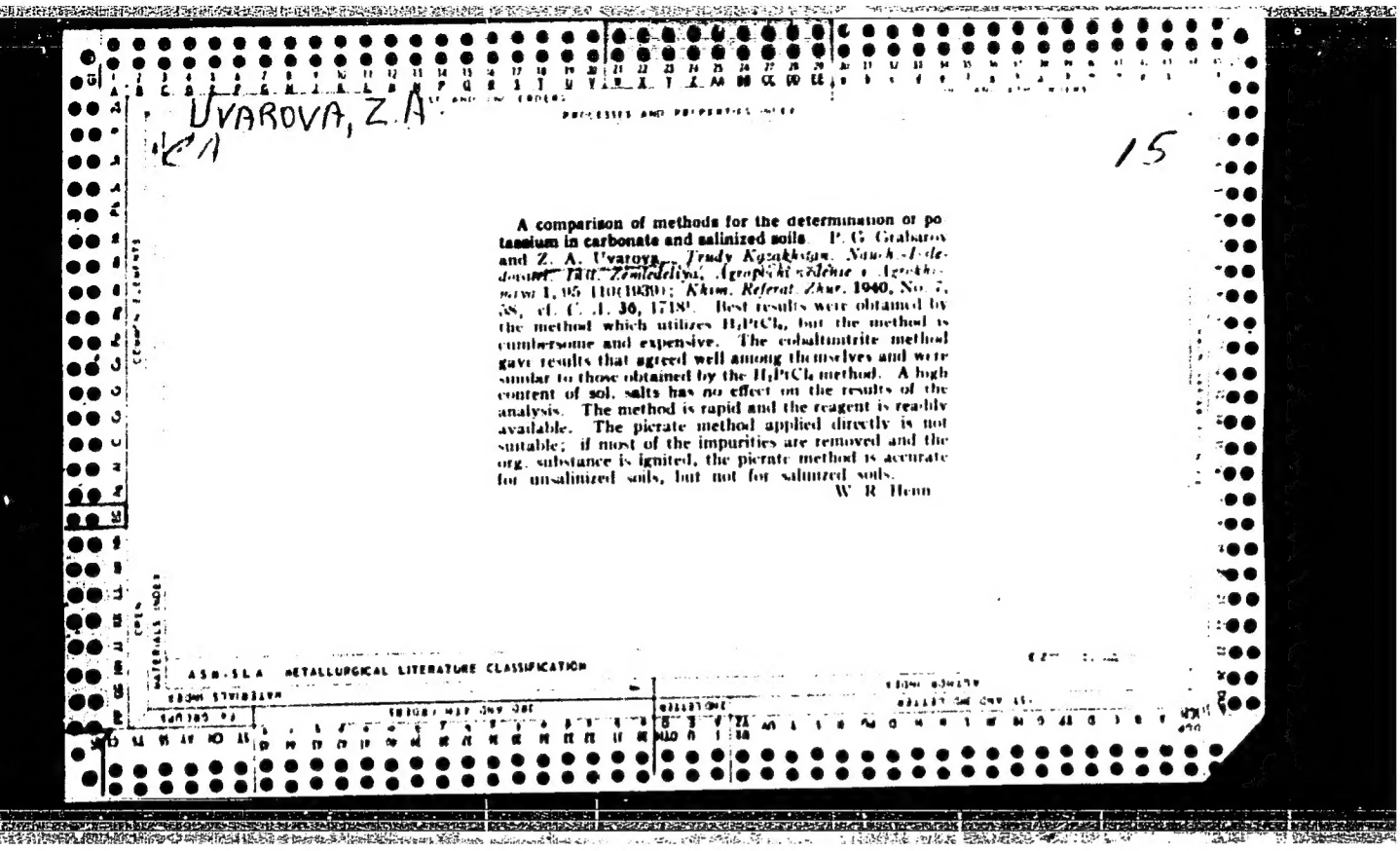
LIAKUMOVICH, A.G.; ZAKHAROVA, N.V.; LAPKIN, L.M.; ANDREYEVA, L.N.; RAZUMOVSKAYA, L.V.; UVAROVA, Ye.D.; VOLOSHKO, S.G.

Chromatographic analysis at the Sterlitamak Plant of Synthetic Rubber. Zav.lab. 28 no.5:637 '62. (MIRA 15:6)

1. Sterlitamakskiy zavod sinteticheskogo kauchuka.
(Sterlitamak--Rubber, Synthetic) (Chromatographic analysis)

UVAROVA, Ye.I., chlen Kommunisticheskoy partii

Visiting Lenin in the Kremlin. Sov. profsoiuzy 6 no.4:29-30 Ap '58.
(MIRA 11:5)
(Lenin, Vladimir Il'ich, 1870-1924)

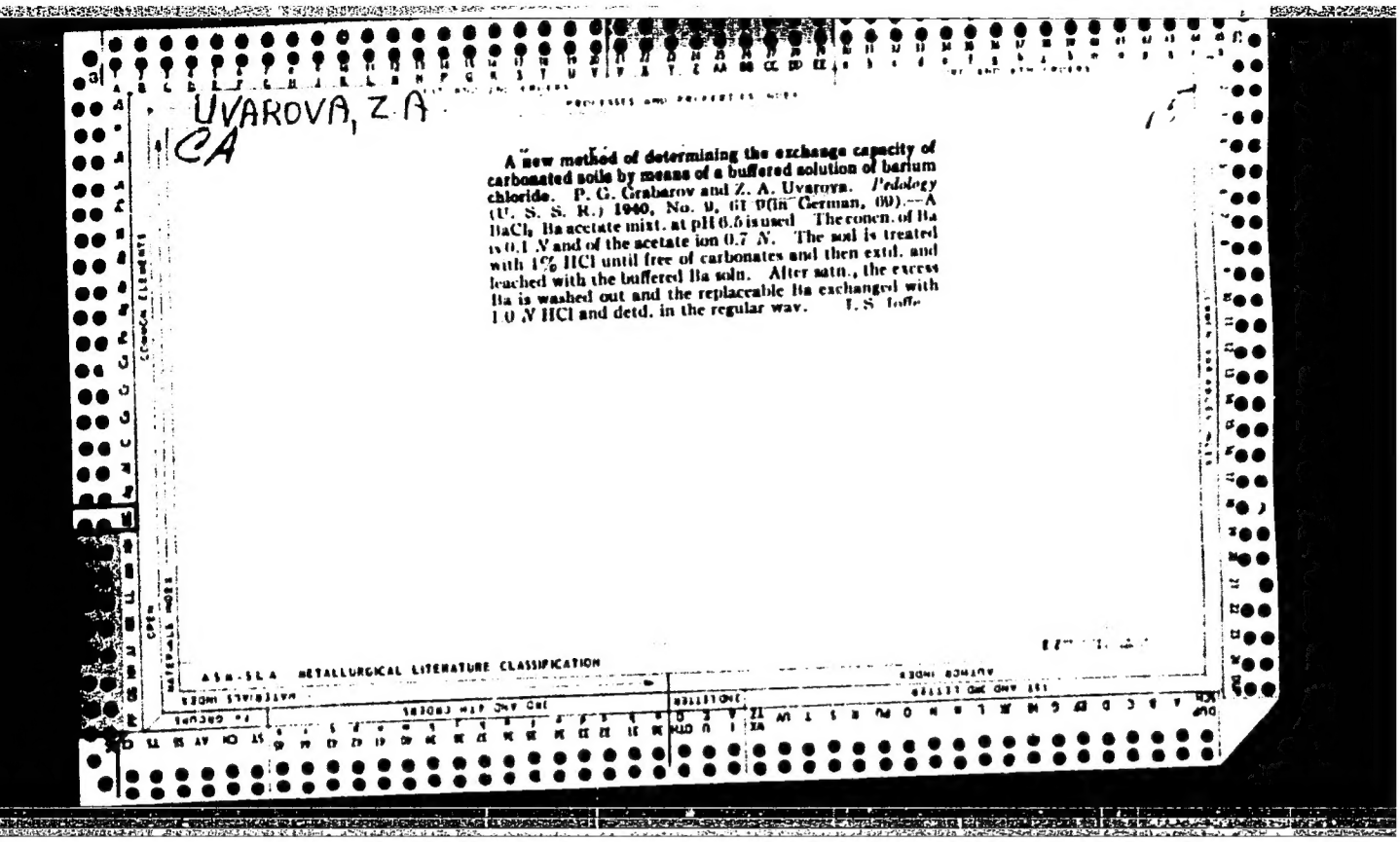


UVAROVA, Z.A.

15

A comparison of methods for the determination of potassium in carbonate and salinized soils. P. G. Grabarov and Z. A. Uvarova. *Trudy Kazakhstan. Nauch.-Issledovatel. Inst. Zemledeliya, Agropochv. sektsiya i Agrokhim. sektsiya* 1, 95–110(1939); *Khim. Referat. Zhur.* **1940**, No. 7, 58; cf. *C. A.* **36**, 1718⁹. Best results were obtained by the method which utilizes H_2PtCl_6, but the method is cumbersome and expensive. The cobaltinitrite method gave results that agreed well among themselves and were similar to those obtained by the H_2PtCl_6 method. A high content of sol. salts has no effect on the results of the analysis. The method is rapid and the reagent is readily available. The picrate method applied directly is not suitable; if most of the impurities are removed and the org. substance is ignited, the picrate method is accurate for unsalinized soils, but not for salinized soils.
W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



UVAROVA, Z A
CA

A new method of determining the exchange capacity of carbonated soils by means of a buffered solution of barium chloride. P. G. Grabarov and Z. A. Uvarova. *Pedology* (U. S. S. R.) 1940, No. 9, 61-9(in German, 69).—A BaCl$_2$-Ba acetate mixt. at pH 6.5 is used. The concn. of Ba is 0.1 *N* and of the acetate ion 0.7 *N*. The soil is treated with 1% HCl until free of carbonates and then extd. and leached with the buffered Ba soln. After satn., the excess Ba is washed out and the replaceable Ba exchanged with 1.0 *N* HCl and detd. in the regular way. I. S. Joffe

[illegible], [illegible]

"Biochemical Characteristics of [illegible]-Killed [illegible] in [illegible] in the Alcohol Industry." [illegible], [illegible]
(Referativnyy Zhurnal--Khimiya, Moscow, No 2, Jan [illegible])

SO: SUM [illegible], 19 Aug 195[illegible]

UVAROVA, Z.A.; KOROL', G.S.; ZYBENKO, L.D.; GERASIMENKO, G.

Effect of ammonium carbonate on certain physiological features in corn. Izv. AN Kazakh. SSR. Ser. bot. i pochv. no.1:52-56 '61.
(MIRA 14:4)

(Ammonium carbonate—Physiological effect)
(Corn (Maize))

UVAROVA, Z.A.; PRIKHOD'KO, L.S.

Physical and biochemical characteristics of the ripening and storage of millet. Trudy Inst. bot. AN Kazakh. SSR. 12:161-168 '62. (MIRA 15:5)
(Kazakhstan—Millet)

UVAROVA, Z.S.

Motor function development during the first year of life in children brought up in children's homes [with summary in English]. Pediatriia 36 no.6:36-42 Je '58 (MIRA 11:6)

1. Iz Nauchno-issledovatel'skogo pediatricheskogo instituta Ministerstva zdravookhraneniya RSFSR (dir. V.N. Karachevtseva).

(INFANTS
motor funct. develop. in first year (Rus))
(MOVEMENT,
motor funct. in inf. (Rus))

SOV/2-58-11-3/18

AUTHOR: Uvashev, T., Chief of the Kazakh SSR Administration of Statistics

TITLE: Kazakhstan Is Preparing for the Census (Kazakhstan gotovitsya k perepisi)

PERIODICAL: Vestnik statistiki, 1958, Nr 11, pp 18-20 (USSR)

ABSTRACT: In 1958, in the Kazakh SSR were 16 oblast's, 192 rural districts, 43 towns and 146 workmen's settlements. In 1956, the population had reached approximately 8.5 million. In 1957, the industrial gross production had increased by 5 times as compared with 1940. From 1954 till 1957 were established 544 new sovkhozes and 20 million ha of virgin and fallow lands were cultivated. In 1956, the sovkhozes and kolkhozes delivered 1 billion puds of corn to the State. All preparatory work for the census has already been done. Altogether,

Card 1/2

Kazakhstan Is Preparing for the Census SOV/2-58-11-3/18

31,000 people will be employed with the census taking.
There is 1 table.

ASSOCIATION: Statisticheskoye upravleniye Kazakhskoy SSR (The Kazakh SSR Administration of Statistics)

Card 2/2

UVAROVA, Z. S.

UVAROVA, Z. S.: "The development of motor reactions in children during the first year of life when they have been raised under conditions of a children's home." Second Moscow State Medical Inst imeni E. V. Stalin. Moscow, 1956. (DISSERTATION FOR THE DEGREE OF CANDIDATE IN MEDICAL SCIENCE).

Knizhnaya letopis'
No. 35, 1956. Moscow.

MINKEVICH, M.A.; SOROCHEK, P.G.; UVAROVA, Z.S.

[Physical exercises for young children; medical supervision, organization and methods. A manual for physicians and teachers] Fizicheskie uprazhneniia dlia detei rannego vozrasta; vrachebnyi kontrol', organizatsiia i metodika. Posobie dlia vrachei i pedagogov. Moskva, Medgiz, 1958. 253 p. (MIRA 11:9)
(PHYSICAL EDUCATION FOR CHILDREN)

UVAROVA, Z.S.

Motor function development during the first year of life in children brought up in children's homes [with summary in English]. Pediatriia 36 no.6:36-42 Je '58 (MIRA 11:6)

1. Iz Nauchno-issledovatel'skogo pediatricheskogo instituta Ministerstva zdravookhraneniya RSFSR (dir. V.N. Karachevtseva).
(INFANTS
motor funct. develop. in first year (Rus))
(MOVEMENT,
motor funct. in inf. (Rus))

C. UVAROVSKAYA O.M.

1/6

On a method of determining neutral 17-ketosteroids and estrogens in urine and in patients with endocrine diseases. O. M. Uvarovskaya (All-Union Inst. Exptl. Endocrinology, Moscow). *Klin. Med.* (Moscow) 29, No. 3, 57–63(1951).—17-Ketosteroids and estrogens were detd. colorimetrically using the *m*-dinitrobenzene and thiophenol methods, resp. Daily excretion of 17-ketosteroids in mg. and of estrogen in γ was for men 8–17 and 13–21, for women 7–14 and 3–62, for boys 1–2.8 and 2–10 and for girls 0.8–1.05 and 1–14. 17-Ketosteroid excretion was definitely increased in cases of adrenal tumor and decreased in eunuchoidism, Simmond's disease, and Addison's disease. The estrogen values lay within the normal range. The ratio of α to β 17-ketosteroids varied from 1:2.7 for adrenal tumor to 8.7:1 for boys with early sexual development. H. L. Williams

PARINI, V.P.; UVAROVSKAYA, O.M.

Determination of urinary pregnandiol in endocrine diseases. Akush. gin. Moskva No. 1:15-20 Jan-Feb 52. (CIML 21:4)

1. Of the All-Union Institute of Experimental Endocrinology (Director--Honored Worker in Science Prof. N.A. Shereshevskiy).

UVAROVSKAYA, O.M.

The isolation of neutral 17-keto steroids (androgens) from urine by precipitation. O. M. Uvarovskaya (All-Union Inst. Exptl. Endocrinol., Moscow). *Problemy Endokrinol. i Gormonoterap.* 2, No. 3, 110–12(1956).—Take 50 ml. of a 24-hr. specimen of urine, add to it 2–3 ml. concd. H_2SO_4 to make it acid to Congo red paper and heat on water bath for 30 min. Without cooling add 32 g. pulverized $(NH_4)_2SO_4$; mix to complete soln. If the salt cannot be completely dissolved, heat again on water bath at 70–80° with constant shaking till complete soln. of the salt. Allow the flask to stand at room temp. overnight. Filter and discard the filtrate. Allow the ppt. to dry at room temp. for 1–2 hrs. or overnight. Dissolve the ppt. both in a mixt. of equal vols. of *N* NaOH or KOH and Et_2O. Transfer the soln. into 50 ml. flask, filter through glass wool into a separatory funnel (50–100 ml.). To dissolve the ppt. completely use more of the same mixt., mix, and let it stand for 10–15 min. Sep. the aq. alk. soln. from the ether. Wash the ethereal soln. 1–2 times with 5–8 ml. *N* alkali till disappearance of the discoloration. The alk. aq. soln. contains estrogenic hormones. Now wash the ethereal soln. contg. the neutral 17-keto steroids in 10–12 ml. 0.1*N* H_2SO_4, followed by the identical vol. of distd. water. Immediately sep. the water from the ethereal soln. Discard the aq. soln. Transfer the ethereal soln. into test tubes and let it stand in the dark. For the detn. of neutral 17-keto steroids use the electrophotocolorimeter with green filter (max. transmission about 540 mμ). Compare the readings with control solns. The formula: $X = A/D \times M$ where *X* is the amt. of neutral 17-keto steroids in mg. per 24 hrs.; *A* = total vol. of the ethereal ext. in ml.; *D* = the value of *A* found from the calibrated curve; *M* = the amt. of urine taken for the analysis per 24 hrs. in ml.; *X* = the amt. of tetered soln. taken for the detn.; *M* = the vol. of urine taken for the analysis. The method was compared with the usual exts. with dichloroethane and by adding a certain amt. of androsterone to urine. The results of both controls were good. From 98.80 99.42% of the added androsterone was recovered.

A. V. Lebedinskaya

UVAROVSKAYA, O.M. (Moskva)

Modification of the method for the quantitative determination of 3 (α) and 3 (β) fractions of neutral 17-ketosteroids in the urine. 14a Prob. endok. i gorm. 8 no.2:76-80 Mr-Ap'62. (MIRA 16:7)

1. Iz klinicheskoy laboratorii (zav.- A.A.Zakharycheva) Vsesoyuznogo instituta eksperimental'noy endokrinologii (dir.-prof. Ye.A.Vasyukova).
(STEROIDS URINE)

UVAROV, V. V.

297 Tekhnologiya Izgotovleniay Osnovnykh Elementov Kotloagregata. (Posobiye Dlya Studentov Energomashinostro t. Fak.) M., 1954. 164s. 3 Chert.; 2 L. Tabl. 22 SM. (M-vo V'ssh. Obrazov'niya Sssr. Mosk. Ordena Lenina Energet. In-t Im. V. M. Molotova. Kafedra Kotlostroeniya). 4000EKZ. Besp1. V Per. (54-55320) 621.772' (

SO: Knizhnaya, Letopis, Vol. 1, 1955

UVEGES, J

3

76. **Gallium content of Hungarian bauxites.** P. Papp, I. Uveges, A. Héjja. *Kohászati Lapok*. Vol. 10 (88), 1955, No. 7, pp. 314—319, 3 figs., 2 tabs.

A wet analytical and spectroscopic method has been elaborated for the precise determination of gallium contents in the order of a thousandth per cent. By this method a survey has been prepared of the gallium contents found in the raw materials, intermediate and final products of Hungarian alumina plants operating by the Bayer process. On the basis of these data gallic metallic gallium has been produced from the intermediate products by electrolytic advance concentration and by the further separation of the enriched precipitate.

JOZSEF UJHELYI

The production of high-purity alumina hydrate in Bayer plants. Sándor Dunay, András Héjja, and József Ujhelyi. *Fémipari Kutató Intézet Közleményei* 1956, 77–96.—A method was worked out for detg. the impurities during the enriching process of the hydrate, based on extractive enriching in a Soxhlet app. Only 80–100 g. alumina hydrate is necessary for the detn., and the method is of satisfactory accuracy. The method showed that the V_2O_5 can be washed out entirely from the hydrate, the P_2O_5, SiO_2, and Na_2O in part, and the Fe_2O_3 and the TiO_2 not at all. The double rinsing used in alumina plants entirely removes the water-sol. impurities. The floating impurities (approx. 75–80% Fe_2O_3, 12% SiO_2, and 12% TiO_2) and dissolved Na_2FeO_4 can be filtered out by a granulated synthetic corundum filter with the addn. of some 3% H_2O_2. Felicitas D. Goodman

ÖVEGES, J.

Examination of the red sludge from the Bayer (alumina) process by differential thermal gravimetry. József Üveges (Fémipari Kutató Intézet, Budapest, Hung.). *Fémipari Kutató Intézet Közleményei* No. 2, 13-23(1958).—Differential thermal gravimetric curves were prepd. from red sludges (I) originating from various Hungarian bauxites. The samples were ground to pass through a No. 4900 sieve. Samples of 1 g. were used, and the heating rate was regulated with toroid transformers to 10°/min. Readings were taken at 1-min. intervals from 70 to 1000°. A substantial percentage of the original böhmite and hydrargillite is present in I unless the bauxite is kept at a high temp. prior to digestion. All kaolinite was decompd. during digestion, while natrolite was detected in every sample examd. The easier the digestibility of the bauxite, the higher was the percentage of natrolite in I. Anhyd. alumina was present in I from bauxites that had received a heat-treatment.

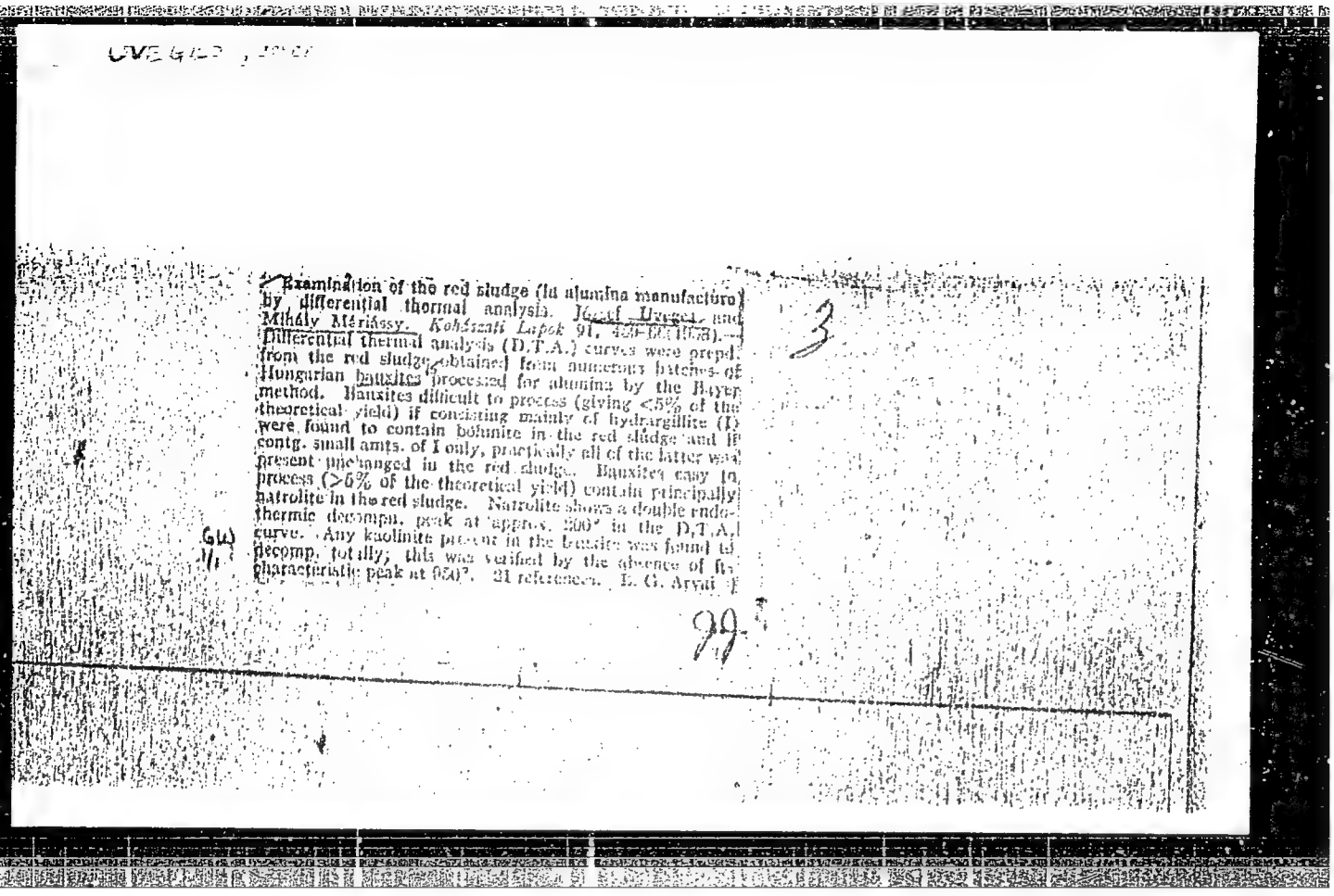
L. G. Ayvazi

UVEGES, J.; MARIASSY, M.

Testing red muds in alumina factories by the DTG method. p.459

KOHASZATI LAPOK. (Magyar Banyaszati es Kohaszati Egyesulet)
Budapest, Hungary
Vol. 13, no.10/11, Oct./Nov. 1958

Monthly List of East European Accessions (EEAI) LC., Vol. 8, no.7, July 1959
Uncl.



Examination of the red sludge (in alumina manufacture) by differential thermal analysis. József Ungár and Mihály Mériássy. *Kohászati Lapok* 91, [illegible] (1958).—Differential thermal analysis (D.T.A.) curves were prepd. from the red sludge obtained from numerous batches of Hungarian bauxites processed for alumina by the Bayer method. Bauxites difficult to process (giving <5% of the theoretical yield) if consisting mainly of hydrargillite (I) were found to contain böhmite in the red sludge and if contg. small amts. of I only, practically all of the latter was present unchanged in the red sludge. Bauxites easy to process (>6% of the theoretical yield) contain principally natrolite in the red sludge. Natrolite shows a double endothermic decompn. peak at approx. 500° in the D.T.A. curve. Any kaolinite present in the bauxite was found to decomp. totally; this was verified by the absence of its characteristic peak at 950°. 21 references. L. G. Aryan

UVEGES, Jeno

KOVATS, Ferenc, dr. kandidatus; PAPP, Andras, dr.; UVEGES, Jeno, dr.

Early results of pneumothorax. Tuberk. kerdesei 6 no.3:55-56 Aug 53.

1. Az Allami Koranyi Tudobeteggyogyintezet (igazgato: Dessauer Pal. dr.) es az Allami Jozsef Tudobeteggyogyintezet (igazgato: Risko Ribor dr.) kozlemenye

(PNEUMOTHORAX, ARTIFICIAL
early results)

NEMETH, Tibor; PAPP, Andras; UVEGES, Jeno; NYARADY, Ivan; PAL, Ferenc; BOLEMAN, Eszter

Fate of tuberculotic patients treated with tuberculostatics 5 years after leaving the institute. Orv. hetil. 98 no.30:822-826 28 July 57.

1. Az Orszagos Koranyi Tbc. Intezet (igazgato-foorvos: Seri Istvan dr., tudomanyos vezeto: Sebok Lorand dr.) dzervezesi modszertani, statisztikai es Tudobeloszta1yainak, es az. Allami Fedor Jozsef TBC Gyogyintezet (Igazgato-foorvos: Risko Tibor Dr.) I. sz. Tudobeloszta1yanak Kozlemenye.

(TUBERCULOSIS, PULMONARY, ther.
chenother., follow-up (Hun))

UVEGES, Jeno, dr.; MIHALY, Geza, dr.

Late results in patients refusing thoracic surgery. Tuberkulozis 14 no.11:346-349 N '61.

1. Az Orszagos Koranyi Tbc Intezet (Igazgato: Boszormenyi Miklos dr. kandidatus, tudomanyos vezeto: Foldes Istvan dr. kandidatus) I Belosztalyanak (vezeto: Barat Iren dr.) kozlemenye.

(TUBERCULOSIS PULMONARY surg)

[illegible], Jeno, dr.; [illegible], Robert, dr.

Data on the closure of cavities following drug therapy. Tuberkulozis 17 no.3:77-80 Mr '64.

1. Az Orszagos Koranyi Tbc Intezet (Igazgato: Boszormenyi Miklos dr. tudomanyos igazgato: Foldes Istvan dr.) I Belosztalyanak (vezeto: Barat Iren dr.) kozlemenye.

SOV/81-59-16-57625

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 16, p 282 (USSR)

AUTHORS: Il'inskiy, V.P., Seferovich, Ya.Ye., Uverskaya, A.T., Volnyanskaya, E.M. Vyshenkova, O.I.

TITLE: The Preparation of Crystalline Ferrous Bromide by the Sorption of Bromine by a Ferrous Bromide Solution

PERIODICAL: Sb. tr. Gos. in-ta prikl. khimii, 1958, Nr 41, pp 193-209

ABSTRACT: Based on the data of the solubility in the system $FeBr_2$ - H_2O and thermochemical calculations on the system $FeBr_2$ - Br_2 (gas) and $FeBr_3$ - Fe, the possibility of obtaining $FeBr_2$ without smoothing has been proved and a method of production has been proposed.

N. Shiryayeva.

Card 1/1

UVERSKAYA, V.T.

KHVILIVITSKAYA, M.I.; UVERSKAYA, V.T.; TARTAKOVSKIY, M.B. (Leningrad)

Fourteenth All-Union Congress of Therapeutists. Terap.arkh. 29 no.1:83-99 Ja '57. (MIRA 10:12)
(HEART--DISEASES)

UVERSKAYA, V.T.

Effect of ascorbic acid on cholesterinemia and acid-base equilibrium in hypertension and atherosclerosis. Trudy LSGMI 40:150-158 '58. (MIRA 12:8)

1. Fakul'tetskaya terapevticheskaya klinika Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (zav. klinikoy - prof.A.A.Kedrov). Rukovoditel' raboty - prof. V.D.Vyshegorodtseva.

(HYPERTENSION, blood in,
acid-base equilibrium & cholesterol, eff. of vitamin C (Rus))
(ARTERIOSCLEROSIS, blood in,
same)
(VITAMIN C, effects,
on acid-base equilibrium & blood cholesterol in arteriosclerosis & hypertension (Rus))
(CHOLESTEROL, in blood,
in arteriosclerosis & hypertension, eff. of vitamin C (Rus))

UVERSKAYA, V.T.

Changes in the total cholesterol and lipoid phosphorus (lecithin) in patients with arteriosclerosis and hypertension as related to the functional state of the nervous system. Trudy LSGNI 48:113-119 '59. (MIRA 14:2)

(CHOLESTEROL) (LECITHINS)
(ARTERIOSCLEROSIS) (HYPERTENSION)

UVERSKAYA, Ye.; ARISKINA, A., inzh.-tekhnolog

Advice to the cook. Obshchestv. pit. no.4:23-25 Ap '63.
(MIRA 16:6)

1. Zamestitel' direktora kombinata pitaniya Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova, predsedatel' kulinarnogo soveta kombinata obshchestvennogo pitaniya pri Moskovskom gosudarstvennom universitete (for Uverskaya).
(Cookery)

UVEROSKAYA-RAVICH, V.T.

Importance of biologic condition of the organism in the determination of functional injuries of kidneys. Ter.arkh. 22 no.2:43-50 Mr-Ap '50. (CLML 19:3)

1. Of the Faculty Therapeutic Clinic (Director -- Prof. V.D. Vyshegorodtseva), Leningrad Sanitary-Hygienic Medical Institute.

IOFFE, A.I.; UVERSKIY, A.A.; GAVELYA, V.V.

Fast method for measuring the moisture content of granular nitrogen-phosphorus-potassium fertilizers. Zav.lab. 31 no.10:1212-1213 '65. (MIRA 19:1)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut azotnoy promyshlennosti i produktov organicheskogo sinteza, Dneprodzerzhinskiy filial.

IOFFE, A.I.; UVERSKIY, A.A. [Uvers'kyi, O.O.]

Automatic control of the ammoniation process in the production of combined fertilizers. Khim.prom. [Ukr.] no.2:68-70 Ap-Je '65. (MIRA 18:6)

UVERSKIY, I.T., inzhener.

New designs for internal dial gauges. Stan.i instr.18 no.9:24-25 S '47. (MLRA 9:1)

1.Zavod Kalibr.
(Gauges) (Measuring instruments)

UVERSKIY, I. T.

Interferometer.

PIU-1 type contact interferometer. Stan. i instr. 23 no. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1953/2 Unclassified.

UVERSKIY, I. T.

"Interferential-Contact Measuring Methods in Machine Building." Cand Tech Sci, Moscow Machine Tool and Tool Inst imeni I. V. Stalin, 1 Dec 54. (VI, 19 Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (11)

SO: Sum. No. 521, 2 Jun 55

UVERSKIY, I.T.

Contact interference method of measuring length on the PIU-2 instrument. Izm.tekh.no.5:28-31 S-O '55. (MLRA 9:1)
(Measuring instrument)

UVERSKIY, I.T.

Interference-graduated gauges, scales, and instruments. Izm.tekh.no.2 Mr-Ap '56. (Interferometer) (MLRA 9:7)

UVAROVSKIY, I.T.

Contacts in length measurements. Izm. tekh. no.3:13-15 My-Je '57.
(Length measurement) (MLRA 10:8)

UVERSKIY, I.T.

The PIU-3 contact horizontal interferometer. Izm.tekh.no.3:20-21 My-Je '56. (Interferometer) (MLRA 9:9)

AUTHOR: Uverskiy, I.T. SOV/115-58-1-35/50

TITLE: A Hilger Interferometer for Absolute and Comparative Length Measurements (Interferometr Khilgera dlya absolyutnykh i sravnitel'nykh izmereniy dlin)

PERIODICAL: Izmeritel'naya tekhnika, 1958, Nr 1, pp 80 - 81 (USSR)

ABSTRACT: This is a detailed description of the design and operation of a two-beam interferometer for measuring the length of plane-parallel gage plates of up to 300 mm length, produced by Hilger & Watts (Britain) and described in the firm's catalogue [Ref 1]. The measurement error of the interferometer is between ± 0,000025 and ± 0,000125 mm. The Hilger interferometers are of interest as they are high-precision contactless instruments causing no wear or damage to plate gages in the process of checking. There are 4 diagrams and 2 references, 1 of which is English and 1 Soviet.

1. Interferometers---Design 2. Interferometers---Operation

Card 1/1

SOV-115-58-3-15/41

AUTHOR: Uverskiy, I.T.

TITLE: Measuring the Drawing Together of Contact by Absolute Interference Method (Izmereniye kontaktnykh sblizheniy absolyutnym interferentsionnym metodom.)

PERIODICAL: Izmeritel'naya tekhnika, 1958, Nr 3, pp 46-47 (USSR)

ABSTRACT: The article presents results of a study of contact rapprochement, i.e. errors caused by the dipping of the contact tip into a surface, in measurements of Johansen gage blocks with instruments using contact tips. Corundum and steel tips of spherical and flat shape and Johansen gage blocks of a high accuracy class were used in the study. Measurements of contact rapprochement were performed with a Kesters' interference comparator with a special weighing device (Fig. 2), the rapprochement was measured in lengths of the light waves of the yellow spectrum line of krypton (λ =0.587 micron). The following conclusions were made: the accidental error (ε) introduced by contamination of tip and fluctuations of the applied weight need not be specially studied; the systematic error (η) caused by dipping of the measuring tip must be calculated by Gerts (Herz) or measured and taken into account for accurated determinations of dimensions; optimum

Card 1/2

tips were found to be spherical corundum tips with R = 14 mm working under force of up to 300 g. In this case, the contact stresses in measured gage blocks are 3-5 times less than the permissible stresses, and the contact rapprochement (δ) is small, constant, and measurable with the best accuracy; in measurements of the gage block ends with the use of optimum tips by the comparison method, the systematic error was found to be zero (η =0), but the absolute measurements revealed η =0.06 micron. The difference of results obtained by calculations with the use of the Herz formula and experimental data (graph, Fig. 3) is thought to be explained by inaccuracy of the Herz coefficient which should be increased by 27%. There is 1 diagram, 1 photo and 1 graph.

1. Gages--Inspection 2. Interferometers--Applications

Card 2/2

UVAROVSKIY, I.T.

Unreliability of the [illegible] method for the determination of the total error of the reading of a length measuring instrument. Izm. tekh. no.5:13-14 My '61. (MIRA 14:5)

ACC NR: AR7001755 SOURCE CODE: UR/0274/66/000/010/B055/B055

AUTHOR: Uverskiy, L. G.

TITLE: A 63-kw, 440-cps, self-excited oscillator using harmonic components

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz', Abs. 10B364

REF SOURCE: Elektrotermiya. Nauchno-tekhn. sb., vyp. 49, 1966, 29-31

TOPIC TAGS: electron tube, electron tube anode, ~~self-excited~~ harmonic oscillator, ~~harmonic component~~ circuit design

ABSTRACT: A method of improving the efficiency of generating tubes based on the use of harmonic components of a self-excited oscillator plate and grid circuits is described. These harmonic components are separated in the reactive elements of the circuit. An increase in generating tube efficiency is due to the fact that as a result of the summing up of the first two harmonics of the plate voltage components, the shape of voltage on the tube plates becomes flat during the period of tube conductivity. The procedure of calculating a parallel ion inverter using two chokes which operate on an active load under aperiodic conditions is used to design the

Card 1/2 UDC: 621.373.42

ACC NR: AR7001755

circuit. Results of experimental investigations of the oscillator are cited. Such oscillators are practicable for use with rated oscillatory power and a corresponding decrease in voltage. [Translation of abstract] [DW]

SUB CODE: 09/

Card 2/2

S/196/62/000/010/028/035
E194/E155

AUTHORS: Donskoy, A.V., and Uverskiy, L.G.

TITLE: An experimental electrical smelting equipment with an electronic invertor of 30 kW, 5 - 10 kc/s

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.10, 1962, 15, abstract 10 K78. (In the Symposium 'Vysokochastotn. elektrotermich. ustanovki' (High Frequency Electro-thermal Installations), M.-L., Gosenergoizdat, 1961, 55-62).

TEXT: A frequency of 5 - 10 kc/s is often required to supply coreless induction furnaces so that the electrical efficiency of the furnace is high even when the charge consists of small pieces and electro-magnetic stirring of the liquid metal is quite good. Such a furnace may be supplied by an invertor. Calculation of the electrical parameters of a 30 kW invertor based on two tubes type ГУ-10А (GU-10A) is given, and also its schematic circuit. Performance curves are given for various conditions (furnace power, rectifier output,

Card 1/2

furnace-circuit and rectifier currents, circuit voltage, frequency and tube efficiency) as functions of furnace circuit capacitance and furnace auto-transformer ratio. The invertor may be used to supply loads with a wide range of parameters.

[Abstractor's note: Complete translation.]

Card 2/2

Category : USSR/General Problems - Method and Technique of Investigation A-4

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 149

Author : Uverskiy, N.T.
Title : Contact-Making Interference Method for Measuring Length with the PIU-2 Instruments.

Orig Pub : Izmerit. tekhnika, 1955, No 5, 28-31

Abstract : Description of the PIU-2 interferometer, consisting of an L-shaped tube, which contains the parts of the optical system of the instruments, and stands with interchangeable stages to hold the measured objects. The superiority in the PIU-2 interferometer over other contact-making interferometers lies in the possibility of calibrating and checking its scale by absolute interference methods and the possibility of changing the measuring force, so as to overcome the residual contact deformation.

Card : 1/1

UVIN, N.

"An automatic bread factory." p. 16 (Stiinta Si Cultura, Vol 5, No 10, Oct 1953, Bucuresti).

SO: Monthly List of East European Accessions, Vol 3, No.2 Library of Congress Feb 54 Uncl

G/029/63/000/002/001/005
A026/A126

AUTHOR: Uvira, Jaromir (Chomutov, ČSSR)

TITLE: Contribution to the mandrel-less drawing of seamless steel tubes produced by reciprocating cold rolling

PERIODICAL: Neue Huette, no. 2, 1963, 84-86

TEXT: Tests have been carried out under industrial conditions in the Chomutov Tube Mill. The program comprised 75 tubes, subdivided into 25 groups of 3 tubes each. The steel grades tested were carbon-steels of a chemical composition similar to that of the Soviet steels St 10 and St 20, Cr-Ni, and Cr-Ni-Mo-steels. The cold rolling was done on 2½" - 3½" -, and 4½" - Meer reciprocating mills. The subsequent reducing was done on a Kieserling draw-bench (30 Mp). The drawing rate for the carbon-steel tubes was 14 m/min, that for the high-alloy steel tubes was 9 m/min. The latter had been copper plated before cold rolling; chlor-paraffin was used as lubricant during drawing. The carbon-steel tubes were not lubricated in drawing. In cold rolling of all steel grades the coolant "Hydrol" was used as lubricant. After drawing of the tubes, a water pressure test at

Card 1/2

Contribution to the mandrel-less...

61 atm and a visual surface inspection were made. It was proved that the surface quality of those tubes made without intermediate annealing was better than that of the tubes which had been exposed to annealing. The evaluation of the test results revealed the following: The cold-working limit in the drawing without mandrel of non-annealed, cold rolled tubes depends not only on the material, but also to a great extent on the ratio between outer diameter of tubes to wall thickness. The larger this ratio the smaller the cross-section reduction in the reducing pass of tubes made by reciprocating cold rolling. Test results are presented in tables. There are 3 tables and 1 figure.

SUBM: October 15, 1962

Card 2/2

UVIROVA-ZHECHEVA, Nina, arkh.

Professor Jiri Krocha; a biographic sketch. Arkhitektura 8 no.3: 30-31 '61.

UVISHIS, L.A., kand.tekhn.nauk; SEMINA, N.A., inzh.

Determining the thinness of wool in an air stream. Tekst.prom. 20 no.9:51-52 S '60. (MIRA 13:10)
(Wool—Testing) (Thickness measurement)

INTERNAL MEDICINE

CZECHOSLOVAKIA UDC 616.643-002-06-08

BURDA, Vladimir; UVIZL, Jiri; Dermatological Department, Military Hospital (Kozni Oddeleni Vojenske Nemocnice), Olomouc.

"Treatment of Urethritis and its Complications."

Prague, Vojenske Zdravotnicke Listy, Vol 35, No 4, Aug 66, pp 174 - 177

Abstract: Classification of urethrites according to their origin is decribed. Clinical symptomatology of the disease is discussed. Treatment of the disease by antibiotics in the form of uretrogel is described. Combination of antibiotic treatment applied locally with antibiotics administered perorally is discussed; this treatment is successful even in cases that were previously considered resistant to treatment. Treatment of 80 patients is described; 72% were healed, in 12% there was an improvement, and in 16% the disease reappeared. 2 Western, 3 Czech references.

1/1

UVNAN, K.; FAL'K, B.; MCHEDLISHVILI, G.I.

Adrenergic structures of the pial arteries and their relations to the cerebral cortex. Biul. eksp. biol. i med. 59 no.6:98-101 Je '65. (MIRA 18:6)

1. Otdel anatomii i otdel gistologii Lundskogo universiteta, Shvetsiya i otdel patofiziologii i morfologii Instituta fiziologii AN Gruzinskoy SSR, Tbilisi.

UVNES, B. [Uvnas, B], ANTONSON, Dzh. [Antonsson, Judith]

Triggering action of phosphatidase A and chymotrypsins on degranulation of mesenteric mast cells in rats. Uch.zap. Inst. farm. i khimioter. AMN SSSR 3:336-346'63. (MIRA 16:9)

1. Department of Pharmacology, Karolinska Institutet, Stockholm 60, Sweden.

(CHYMOTRYPSIN) (PHOSPHOLIPASE)

UVOSTIKOV, I. A.

42137 UVOSTIKOV, I. A., - Lyuminestsentisiya atmosfery. Uspekhi fiz nauk, T. XXXVI, VYP 3, 1948, c 372-86- Bibliogr: 16 Nazv.

SO: Letopis'Zhurnal'nykh Statey, Vol. 47, 1948

1. UVKOVA, K. G.; TARABUKHINA, Ye. V.
2. USSR (600).
4. Hypertension
7. Hemopoiesis in hypertension, Terap. arkh., 25, no. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

UXA, M.

JINDRICHOVA, J., MUDr; UXA, M., MUDr

Women in heavy industry. Pracovni lek. 6 no.4:210-221 July 54.

1. Oddelenie chorob z povolani KUNZ, Hradec Kralove.
(INDUSTRY AND OCCUPATIONS,
women in heavy indust.)

UKA, Miroslav, MUDr

Care of rural health. Prakt. lek., Praha 34 no.22:518-520 20 Nov 54.
(PUBLIC HEALTH
in Czech., rural health care)

UXA, M., MUDr.

Experience with diagnosis of female cancer in the Hradec Kralove county. Cesk.gyn. 20 no.2:137-138 Mar 55.

1. Kraj. gynekolog, Hradec Kralove.
(NEOPLASMS, prevention and control,
in Czech, organiz. of diag. centers for female cancer)

UXA, Miroslav, MUDr.

Dispensary services in cancer; results of screening for cancer in women. Cesk. zdravot. 4 no.5:268-271 May 56.

1. Vedouci lecebne preventivniho oddeleni Krajskeho zdravotnickeho odboru v Hradci Kralove.
(GENITALIA, FEMALE, neoplasms, screening (Cz))

UXA, Miroslav, MUDr.

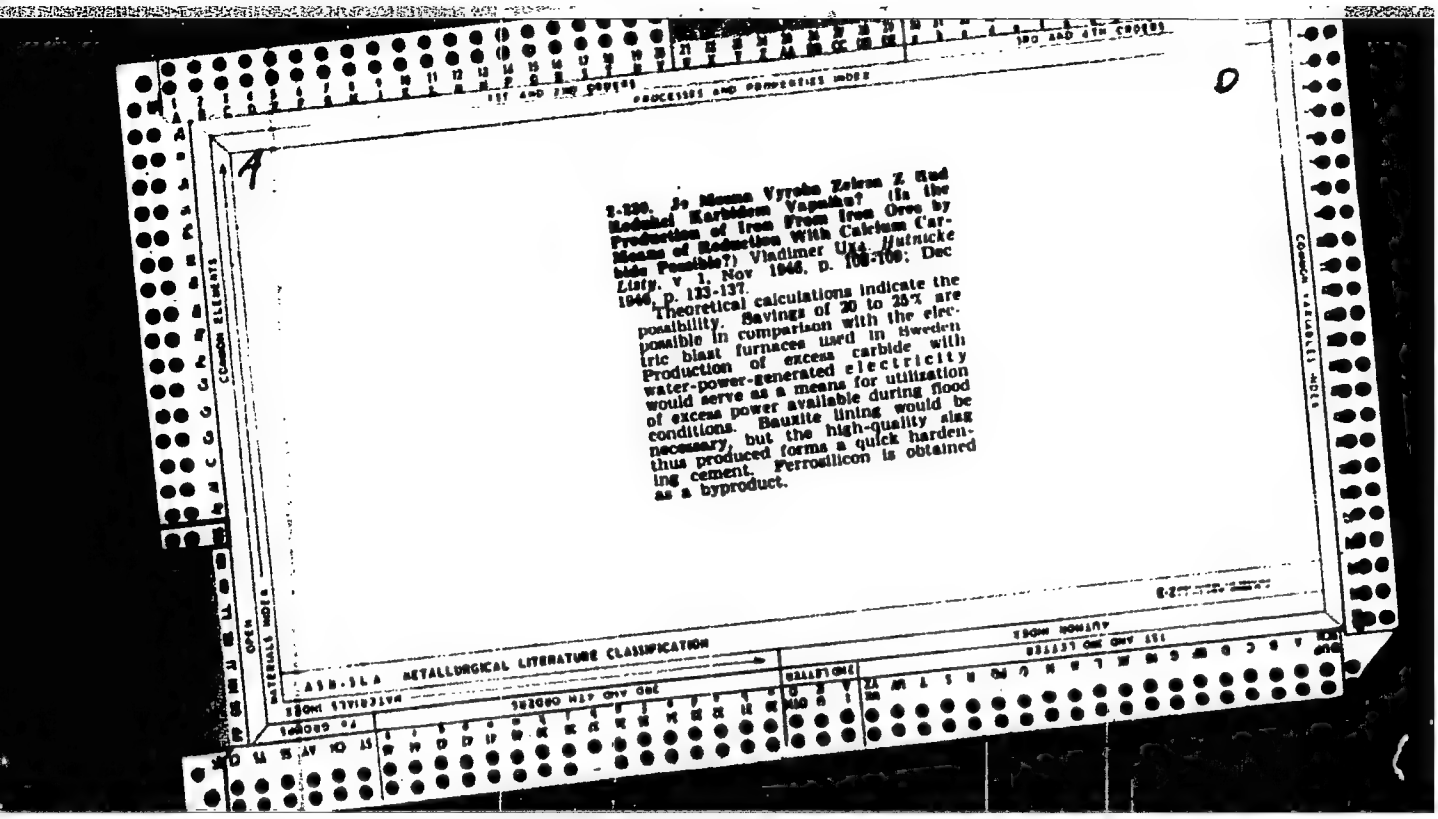
Medical schools during the onset of the second five-year plan.
Cesk. zdravot. 4 no.11:641-649 Nov 56.

1. Prednosta skolskeho odboru ministerstva zdravot.
(EDUCATION, MEDICAL,
in Czech., five-year plans (Cz))

UXA, Miroslav, MUDr.

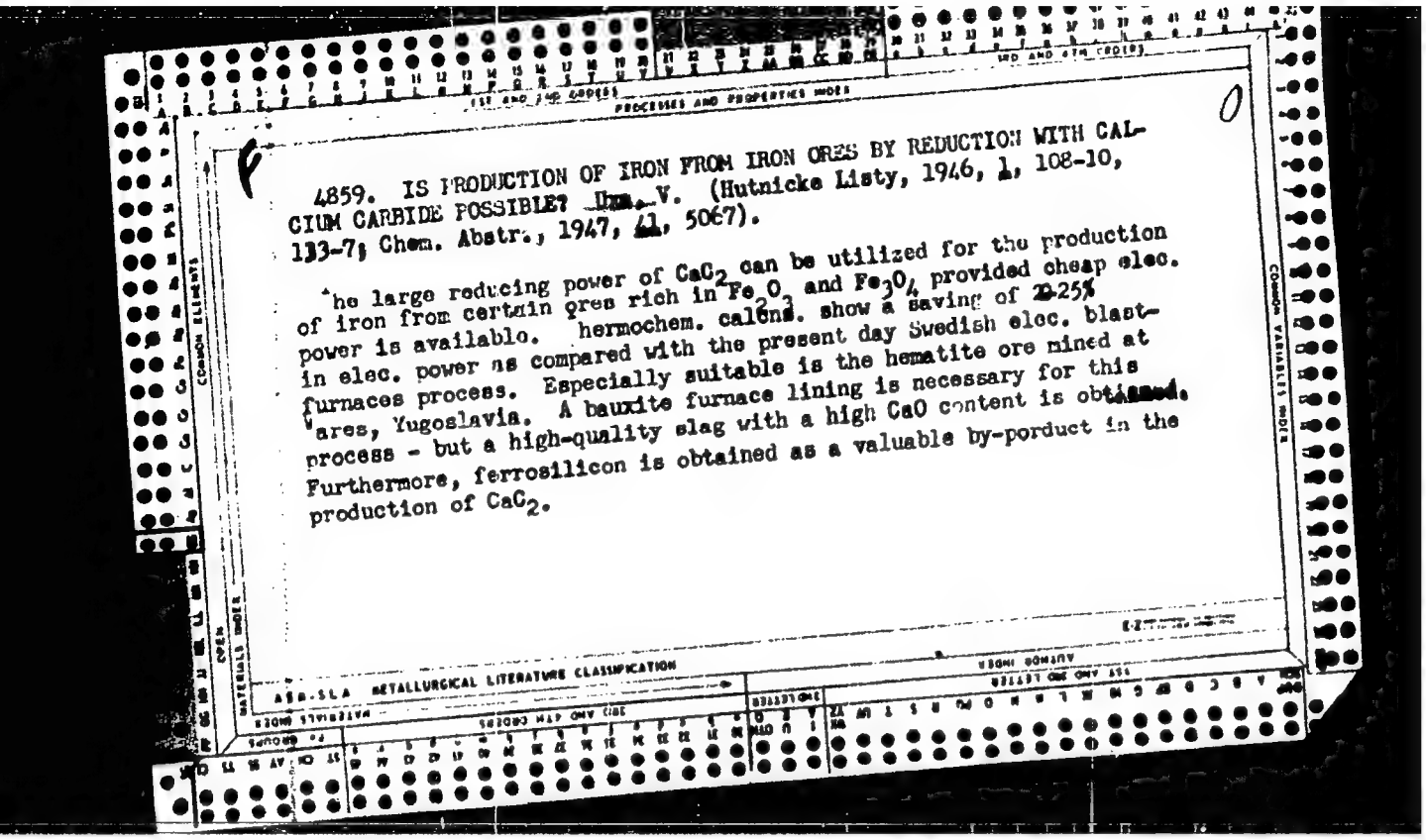
Fulfill the enrolment quota for public health schools.
Cesk. zdravot. 5 no.2:125-127 Feb 57.

1. Vedouci skolskeho odboru ministerstva zdravotnictvi.
(PUBLIC HEALTH, educ.
enrolment quota (Cz))



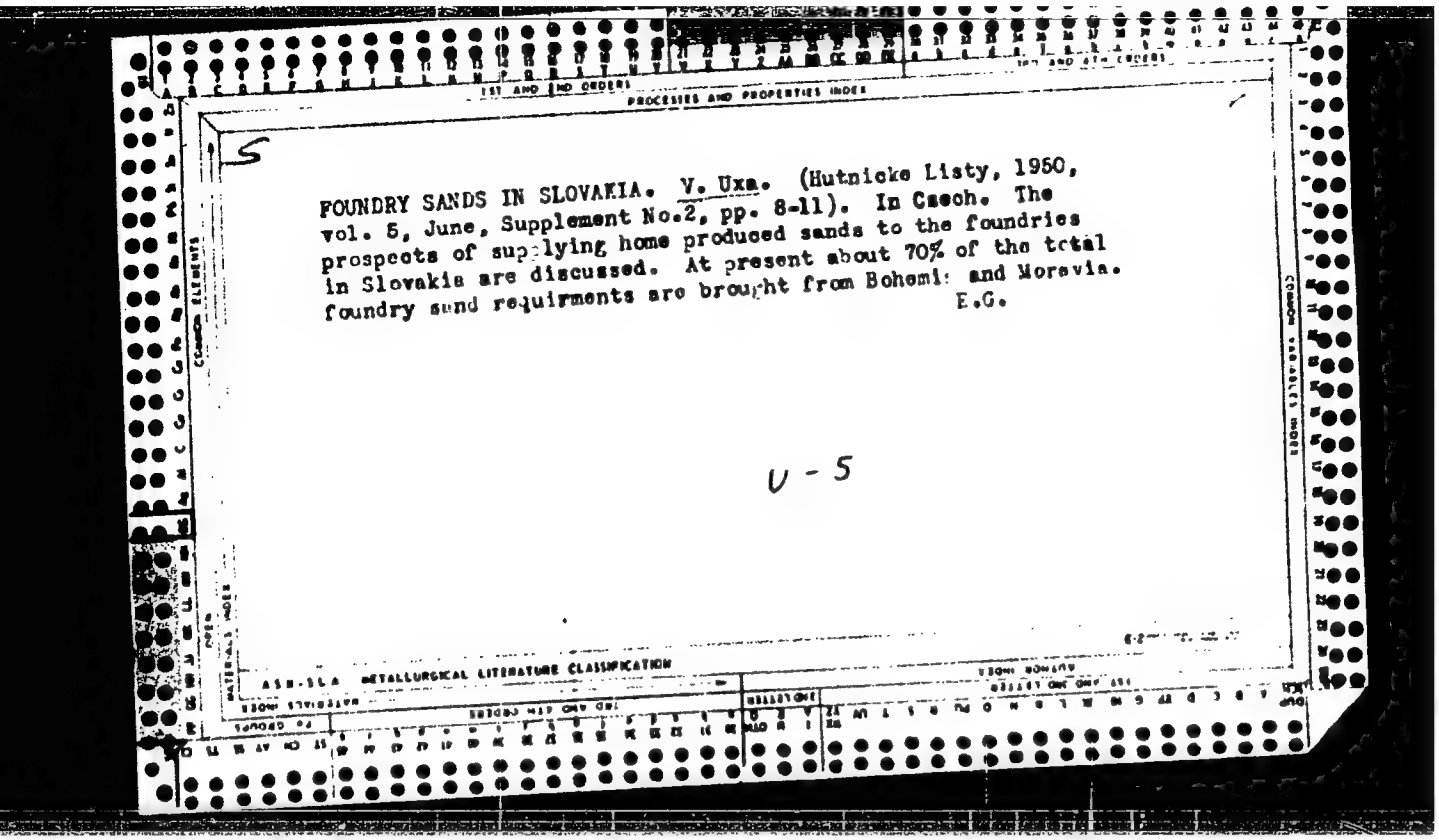
2-220. Jo Means Vyroba Zelcza Z Rud Kodskal Karbidem Vapnitym? (Is the Production of Iron From Iron Ores by Means of Reduction With Calcium Carbide Possible?) Vladimer Ura. *Hutnicke Listy*, v 1, Nov 1946, p. 108-109; Dec 1946, p. 133-137.

Theoretical calculations indicate the possibility. Savings of 20 to 25% are possible in comparison with the electric blast furnaces used in Sweden. Production of excess carbide with water-power-generated electricity would serve as a means for utilization of excess power available during flood conditions. Bauxite lining would be necessary, but the high-quality slag thus produced forms a quick hardening cement. Ferrosilicon is obtained as a byproduct.



4859. IS PRODUCTION OF IRON FROM IRON ORES BY REDUCTION WITH CALCIUM CARBIDE POSSIBLE? Hmm, V. (Hutnicke Listy, 1946, 1, 108-10, 133-7; Chem. Abstr., 1947, 41, 5067).

The large reducing power of CaC_2 can be utilized for the production of iron from certain ores rich in Fe_2O_3 and Fe_3O_4 provided cheap elec. power is available. Thermochem. calcns. show a saving of 20-25% in elec. power as compared with the present day Swedish elec. blast-furnaces process. Especially suitable is the hematite ore mined at Vares, Yugoslavia. A bauxite furnace lining is necessary for this process - but a high-quality slag with a high CaO content is obtained. Furthermore, ferrosilicon is obtained as a valuable by-porduct in the production of CaC_2.



5

FOUNDRY SANDS IN SLOVAKIA. V. Uxa. (Hutnicke Listy, 1950, vol. 5, June, Supplement No.2, pp. 8-11). In Czech. The prospects of supplying home produced sands to the foundries in Slovakia are discussed. At present about 70% of the total foundry sand requirments are brought from Bohemia and Moravia.

E.G.

U - 5

UKA, V.

Uka, V Cast-iron molds for glass production. (To be contd.)p.155.

SO: Monthly List of the East European Accession, (EEAL), LC. Vol. 4, no. 10, Oct. 1955. Uncl.

UXA, V.

Cast-iron molds for glass production. p. 52.
SKLAR A KERAMIK, Praha, Vol. 5, no. 3, Mar. 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955, Uncl.

UXA, V.

Cast-iron molds for glass production. (To be contd.) p. 153.
SKLAR A KERAMIK, Praha, Vol. 5, no. 7, July 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955, Uncl.

UXA, V.

Cast-iron molds for glass production, p. 175, SKLAR A KERAMIK (Ministerstvo lehkeho prumyslu) Praha, Vol. 5, No. 8, Aug. 1955

SOURCE: East European Accessions List (EEAL) Library of Congress, Vol. 5, No. 12, December 1956

UXA, V.

"Repairs of glass molds by welding." P. 20.

SKLAR A KERAMIK. (Ministerstvo lehkeho prumyslu). Praha, Czechoslovakia, Vol. 9, No. 1, Jan. 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8, August 1959.
Uncla.

HAVLIK, Josef, za spolupraca UKOVE, A.

Organisation of rounds in children's wards. Cesk. pediat. 17 no.4: 359-362 Ap '62.

1. Detske oddeleni OUNZ v Karlovych Varech, prednosta MUDr. J. Fidler.

(PEDIATRICS hosp & clin)

PANICH, B.I., kand.takhn.nauk; KHMIROV, V.I., inzh.; U'YANOV, D.P., inzh.

Floating riserheads with ceramic rings. Stal' 21 no.3:225-227 Mr '61. (MIRA 14:6)

1. Ukrainskiy institut metallov, i zavod im. Dzerzhinskogo.
(Risers(Founding)) (Steel ingots)

UYAS, I.

Supplying credit to collective farms. Den. i kred. 20 no.8:56-61 Ag '62. (MIRA 15:9)

1. Zamestitel' upravlyayushchego Volynskoy kontoroy Gosbanka.
(Volyn' Province—Agricultrual credit)

Uybe, A.A.

SUBJECT: USSR/Lenin

25-4-28/34

AUTHOR: Uybe, A.A., Candidate of Philosophic Sciences

TITLE: Memorable Meetings (Pamyatnyye Vstrechi)

PERIODICAL: Nauka i Zhizn' - Apr 1957, #4, pp 59-60

ABSTRACT: The Institute for Marxism & Leninism has gathered enough material for two volumes of "Reminiscences about Lenin". All the material was obtained from persons who had been Lenin's personal friends and acquaintances or had met him occasionally. The first volume contains details about Lenin's life before the 1917 revolution, the second one deals with the period after it. A number of short stories give a picture of Lenin's ways, his versatility and gift to interest people in the problems of those times.

This article contains one illustration.

ASSOCIATON:

PRESENTED BY:

SUBMITTED:

AVAILABLE: At the Library of Congress.

Card 1/1

UYBO, E.[Uibo, E.] (Tallin)

Long distances grow shorter. Sov. profsoiuzy 19 no.8:12-13 Ap '63. (MIRA 16:6)

1. Zaveduyushchiy otdelom kul'turno-massovoy i fizkul'turnoy raboty Estonskogo respublikanskogo soveta professional'nykh soyuzov, neshtatnyy korrespondent zhurnala "Sovetskiye profsoyuzy".

(Estonia—International education)
(Estonia—Trade unions)

UYBO, L. 4a

Centers of capture and the kinetics of afterglow of ammonium halide phosphors. L. V. Il'ina and [illegible]

and NH_4Br [illegible] showed that the [illegible] of the glow [illegible] (T_m) of each phosphor was related to the concn. of the activator. The locations of the T_m and their half-width (I) were practically unchanged at concns. of the activator from 0.03 to 5 mol. %. The shift in the peaks of the NH_4Cl-NH_4Br TlBr (0.1 mol % TlBr) (III) with the 0-100 mol. % concns. of NH_4Br confirmed that the 272°K. peak of I and the 192°K. peak of II corresponded to the capturing centers of the same nature. A in III was considerably greater than in I and II. Emission of phosphor I with 70 mol. % NH_4Br at approx. 200°K. showed a shift in the T_m towards higher temp. and a simultaneous decrease in A. This suggests that the mixed luminophors have a set of "isostructural centers of capture" which are caused by microdefects in the lattice of the crystal and are surrounded by different nos. of Cl^- and Br^- ($9Cl^-$, $7Cl^-$ and $1Br^-$, $6Cl^-$ and $2Br^-$, etc.). The centers of luminescence in NH_4 halide phosphors are Tl ions located in the centers of the lattice (cf. Klement, *Trudy Inst. Fiz. i Astron., Akad. Nauk Eston. S.S.R.* 1955, No. 1). Therefore, the capturing centers and the luminescence centers are completely different formations, and the afterglow is of recombinational nature.

(over)

Uibo, L. YA. Vaek, I. V.

This refutes the "metastable concept" of Seits (C.A. 32, 3265), Randall and Wilkins (C.A. 40, 13[illegible]), Garlick (Luminescent Materials, 1949 (C.A. 44, 942f)), Williams and Eyring (C.A. 41, 6021g), and Johnson and W. (C.A. 47, 3703g). The study of the relation between the accumulated energy (L) and the length (θ) and the intensity (I_e) of excitation showed that with an increase in θ (at const. I_e) or with an increase in I_e (at const. θ) L went through a max. and then leveled out at a certain const. value. The characteristic behavior of the luminescence curve of II revealed that the relation between the probability of the secondary capture (A_s) and the probability of recombination (A_r) was $A_s \ll A_r$. The observed shift in the luminescence peak, $\Delta T_m \lesssim 3°K.$, gave the ratio $\delta_s/\delta_r < 10^{-4}$. This indicated the requirement of the energy of activation (Q) for the localization of electrons along the levels of capture. This was also confirmed by the fact that in both luminophors the values of L depended on the excitation temperature (T_e): at $T_e < T_1$ the L sharply fell with a decrease in T_e. From the $L(T_e)$ relation it follows that for examd. systems at 185°K. Q = 0.02 e.v. 17 references A. P. Kotloby

UYE'S, L.YA.

USSR/Crystals. B-5

Abs Jour : Referat Zhur - Khimiya, No 6, 1957, 18328

Author : U.Kh. Nymm, L.Ya. Uybo.
Inst : Institute of Physics and Astronomy of Academy of Sciences of Estonian SSR.
Title : Condenser Method of Determination of Sign of Photocurrent Carriers in Crystal Phosphors.

Orig Pub : Tr. In-ta fiz. i astron. AN EstSSR, 1956, No 4, 124-128

Abstract : A modification of the condenser method of determination of the sign of photocurrents in crystal phosphors using a narrow band-pass amplifier is proposed. The signs of current carriers in phosphors ZnS-Cu, ZnS- (Cu,Co), ZnS.ZnO-Cu, ZnS-(Cu, Fe), ZnS-(Cu, Ni) and ZnS.CdS-Cu were studied. A continuous excitation with ultraviolet rays was carried out simultaneously with illuminating the phosphors with modulated infrared light with λ from 800 to 850 m. . The majority of excited phosphors

Card 1/2 - 82 -

USSR/Crystals.

Abs Jour : Referat Zhur - Khimiya, No 6, 1957, 18328

acquires the hole conductivity at the infrared stimulation. Exceptions were ZnS- (Cu, Co) and ZnS.ZnO-Cu, in which no photoconductivity was detected. The following conclusion was arrived at: the illumination of excited phosphors with infrared light causes the transition of electrons from the space charge region to the levels of ionozed luminescence centers.

UYBO L YA.

48-5-3/56

SUBJECT: USSR/Luminescence

AUTHORS: Nymm U.Kh. and Uybo L.Ya.

TITLE: On the Condenser Method for Determination of the Sign of Photocurrent Carriers in Crystallophosphors (O kondensatornom metode opredeleniya znaka nositeley fototoka v kristallofosforakh)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1957, Vol 21, #5, pp 648-651 (USSR)

ABSTRACT: A method was developed which makes it possible to determine the sign of photocurrent carriers using an amplifier with the narrow pass band and without application of an additional electric field to the condenser. The phase of voltage arising in the condenser during lighting uniquely depends on the sign of photocurrent carriers. The method is based on recording this phase by means of a phase-sensitive circuit, the synchronous detector. The magnitude and sign of the photo e.m. f. can be determined simultaneously by this method.

The sign of charge carriers in several ZnS-Cu- and ZnS.CdS-Cu-phosphors was determined by this method and the results are

Card 1/2

TITLE: On the Condenser Method for Determination of the Sign of Photocurrent Carriers in Crystallophosphors (O kondensatornom metode opredeleniya znaka nositeley fototoka v kristallofosforakh)

compiled in the table. It can be seen that main charge carriers in the infra-red region are holes. It can be concluded that irradiation by infra-red rays of an excited phosphor induces electron transitions from the filled band into levels of ionized centers of luminescence.

In the discussion that followed this report, Ye.K. Putseyko remarked that while using the condenser method unstable phenomena were eliminated by him by means of immersion of the powders to be tested into insulating media (vinyl varnish etc). The sensitivity of the method was thereby increased and the change in the sign of charge carriers in semiconductors with mixed conductivity could be detected (when both electron and hole carriers are present).

There are 2 graphs, and 1 table. Four Russian references are cited.

INSTITUTION: Tartu State University.
PRESENTED BY:
SUBMITTED: No date indicated.
AVAILABLE: At the Library of Congress
Card 2/2

UYBO, L. YA, CAND Phys-Math Sci — (diss) "Recombination lumenescence and color centers in ammonium halide crystals," Tartu, 1960, 12 pp, 200 cop. (Tartu State U) (KL, 42-60, 111)

24661
S/081/61/000/009/001/015
B101/B205

24,7700

AUTHORS: Lushchik, Ch. B., Uybo, L. Ya.

TITLE: Exciton, electron, and hole processes in ammonium-halide crystal phosphors

PERIODICAL: Referativnyy zhurnal. Khimiya, no.9, 1961, 29, abstract 9B 200 (9B2C0) (" Tr. in-ta fiz. i astron. AN EstSSR", 1960, no. 12, 275 - 277)

TEXT: On the basis of data published on absorption and exciton spectra of alkali-halide and ammonium-halide crystals, the conclusion is drawn that the physical phenomena concerning chiefly the anionic sublattice of the crystals are very similar in both crystal types. The processes taking place in the cationic sublattice, however, differ markedly. This is taken as experimental proof of the fact that the holes move along the anionic sublattice and the electrons along the cationic sublattice of the crystals. [Abstracter's note: Complete translation.]

Card 1/1

S/613/61/000/014/009/019
D207/D303

AUTHORS: Lushchik, Ch. B., and Uybo, L. Ya.

TITLE: Physical processes in ammonium-halide crystals

SOURCE: Akademiya nauk Estonskoy SSR. Institut fiziki i astronomii. Trudy. No. 14, 1961. Issledivaniya po lyuminestsentsii, 190-211

TEXT: The authors review published work on various physical (mainly optical) properties of ammonium-halide crystals (AM) and compare them with the known properties of alkali-halide crystals (AL) noting similarities and differences. The interest in AM crystals is the next logical step after exhaustive studies of the simplest crystals which are alkali halides. NH_4F, NH_4Cl, NH_4Br and NH_4I are mentioned by the authors, but only the last three are discussed in detail. NH_4^+ ions, like alkali ions, are bound to halogens by ionic bonds. AM crystals, like AL compounds, are cubic in struc-

Card 1/3

Physical processes in ...

ture: NH_4Cl and NH_4Br are b.c.c. (CsCl type), but NH_4I is f.c.c. (NaCl type). Cooling AM crystals produces transformations from NaCl to CsCl type and to less symmetric structures. AM crystals sublime easily and in this respect they differ from AL compounds. V-centers (v^+p, where v^+ is a cation vacancy and p is a hole) and Tl^+ centers are similar in AM and AL crystals, but F-centers (v^-e, where v^- is an anion vacancy and e is an electron) differ in AM and AL crystals. This difference is due to F-centers interacting with NH_4^+ ions in AM crystals and with alkali ions in AL crystals; V-centers and Tl^+ centers interact with the same halogen ions both in AM and AL compounds. Optical characteristics (absorption) of excitons of AM and AL crystals are similar and exciton processes are analogous. Hole color centers responsible for low-temperature thermoluminescence and hole processes are similar in AM and AL crystals. All these observations show that processes or properties involving the anion sublattice are very similar in AM and AL cry-

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stals because that sublattice consists of halogens and is, therefore, nearly the same in both types of crystals. Processes and properties which involve the cation sublattice are different in AM and AL crystals because NH_4^+ and alkali ions differ considerably in properties. The complex luminescence mechanism of ammonium-halide phosphors is considered in some detail. Acknowledgments are made to G. G. Liyd'ya, N. Ye. Lushchik and I. V. Yaek for their help in preparing this paper. There are 9 figures and 59 references: 35 Soviet-bloc and 24 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: M. Veta, M. Hirai and H. Watanabe, J. Phys. Soc. Japan, 14, 253 (1959); D. Dexter, Phys. Rev., 108, 707 (1957); R. Knox and N. Inchauspe, Phys. Rev., 116, 1093 (1959); J. Eby, K. Teegarden and D. Dutton, Phys. Rev., 116, 1099 (1959).

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24.3500 (1137, 1138, 1395)

AUTHORS: Pae, A. Ya. and Uybo, L. Ya.

TITLE: Luminescence of ammonium halide crystal phosphors

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25, no. 3, 1961, 347-348

TEXT: This paper was read at the Ninth Conference on Luminescence (Crystal Phosphors) held in Kiyev from June 20 to June 25, 1960. As is already known, ammonium halide crystal phosphors have properties similar to those of alkali halide crystal phosphors. Ammonium halide crystals activated by Tl^+ and Sn^{++} were studied. Studies of X-ray diffraction showed that NH_4Cl and NH_4Br form with TlCl and TlBr a continuous series of solid solutions, the Tl^+ ions replacing the NH_4^+ ions in the lattice. The NH_4I + TlI phosphors form a much more complicated system. The Tl^+ and Sn^{++} ions are the luminescence centers. The bands in the excitation spectra and the luminescence spectra are produced by certain electron -

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vibration transitions ($^1S_0 \longrightarrow {}^3P_{0,1,2}$ and $^1S_0 \longrightarrow {}^1P_1$) in the activator ions. The transitions ${}^3P \longrightarrow {}^1S_0$ occur during emission. The excitation and luminescence spectra of the phosphors studied here agree with those of alkali halide crystal phosphors to a very great extent. More complicated spectra are observed at thallium concentration of up to 70%. New long-wave bands appear in the luminescence spectrum, and a displacement in the direction of longer wavelengths is observed in the excitation spectrum. There exist two types of luminescence spectra which differ from each other in the arrangement of the lattice round the Tl^+ ion. In the case of activation by Sn^{++}, the spectra are not found to become more complicated as the activator concentration increases. The most intensive luminescence is excited in the excitation bands of the activators. Less intensive luminescence is observed on excitation in the exciton absorption band and on excitation in the absorption bands with shorter wavelengths corresponding to band-to-band transitions. This shows that the energy is transferred from the basic substance to the luminescence centers by exciton and electron-hole processes. The large value of the

half-width of the main peak of excitation absorption, the temperature dependence of its position and other details of the characteristics of ammonium halide crystal phosphors lead to the relationship with the specific properties of the NH_4^+ ion. The change from ammonium halide crystal phosphors to some possible polymorphic modifications leads to essential alterations in the characteristics of luminescence. On a polymorphic transition at low temperatures, a change in the characteristic of the trapping centers is observed. In the case of NH_4Cl-Tl, a discontinuous change in the energy of thermal ionization of the capture centers was established at -30.8°C, which is clearly related to "cold scintillations". An effect of polymorphic transformations on the electron-hole relaxation processes has also been established. The results are summarized as follows: The characteristics and the formation of activated luminescence centers in alkali halide and ammonium halide crystals are similar; the electronic color centers (F-centers) of the two phosphors are different; the characteristics of the exciton centers in the two are similar; the exciton processes are also analogous. F. D. Klement and N. I. Ivanova are mentioned. There are 18 references: 16 Soviet-bloc.

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ACCESSION NR: AP5010390 UR/0368/65/002/003/0275/0277 38
535.376 36 B

AUTHORS: Vasil'chenko, V. P.; Uybo, L. Ya.

TITLE: Electroluminescence of Zn phosphor excited by a slowly varying field under the action of additional electric pulses

SOURCE: Zhurnal prikladnoy spektroskopii, v. 2, no. 3, 1965, 275-277

TOPIC TAGS: luminor, zinc sulfide optic material, electroluminescence, sounding pulse effect

ABSTRACT: The authors excited electroluminescence in the phosphor by applying a sawtooth voltage rising at a constant rate, making it possible to study in greater detail the individual phases of the electroluminescence process. The phosphor excited in this manner was studied by application of additional sounding pulses from either a square wave or an audio generator. The brightness waves were recorded with a photomultiplier (FEU-18), an amplifier, and an oscilloscope. The same oscilloscope was used to record the voltage curves. Typical

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